ABSTRACT OF THE DISCLOSURE

[0079] The present invention describes a rapid method for preparing stem cell and physiologically acceptable matrix compositions for use in tissue and organ repair. Compared with previous tissue engineering materials, the stem cell-matrix compositions of the present invention do not require long-term incubation or cultivation *in vitro* prior to use in *in vivo* applications. The stem cells can be from numerous sources and may be homogeneous, heterogeneous, autologous, and/or allogeneic in the matrix material. The stem cell-matrix compositions as described provide point of service utility for the practitioner, wherein the stem cells and matrix can be combined not long before use, thereby alleviating costly and lengthy manufacturing procedures. In addition, the stem cells offer unique structural properties to the matrix composition which improves outcome and healing after use. Use of stem cells obtained from muscle affords contractility to the matrix composition.